

## 1 Introduction

The PB130-024T power base is designed to power a TH13X Series control module. This low voltage power base can be used to drive a line voltage load using a relay or connect directly to equipment (such as a hot water system) using a 24 V signal.

Although the PB130-024T is compatible with most relays, it has been optimized for use with an Aube relay. Aube offers triac relays (SSR) such as the RT850 and RT850T (with built-in 24 V transformer), and electromechanical relays such as the RC840 and RC840T (with built-in 24 V transformer).

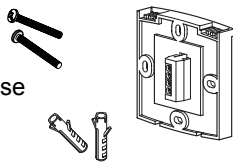
## 2 Installation Guidelines

**Cut power to the heating system at the main power panel to avoid electrical shock. Installation should be carried out by an electrician.**

- ▶ For a new installation, choose a location about 5 ft. (1.5 m) above the floor.
- ▶ The thermostat should be installed facing the heating system and on an inside wall.
- ▶ Avoid locations where there are air drafts (top of staircase, air outlet), dead air spots (behind a door), direct sunlight or concealed chimneys or stove pipes.

## 3 Included Parts

- 1 One (1) PB130-024T low voltage power base
- 2 Two (2) anchors
- 3 Two (2) mounting screws



## 4 Installation Steps

1 Connect the base. See the typical wiring diagrams.

### a) Electric heating (figures 1, 2 and 3)

- Connect the base to the relay:
  - Use a relay with a built-in 24 V transformer or
  - Use a relay and an external 24 V transformer.
- Connect the relay to the load (see relay's instructions).

### b) Hot water heating (figure 4)

- Connect the base to the 24 V valve of the water heating system.

2 For a floor heating installation, connect the floor sensor between the S and R terminals.

3 Push the excess wire into the wall and secure the base using the provided screws and wall anchors.

4 **Before** mounting the control module onto the base, select the heating cycle, set the switches (if necessary) and mount the control module. Refer to the control module's user guide for more information.

5 Once the control module is configured (switches) and installed, return power to the heating system.

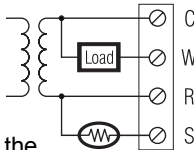


Figure 1: Single unit

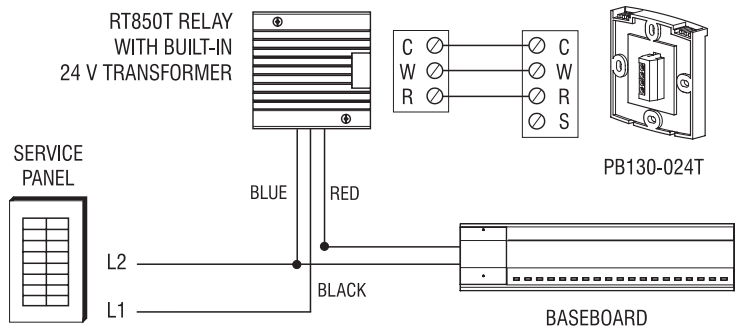


Figure 2: Multiple units

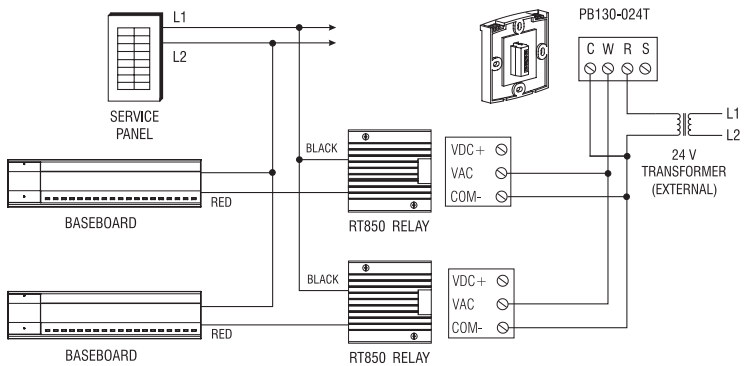
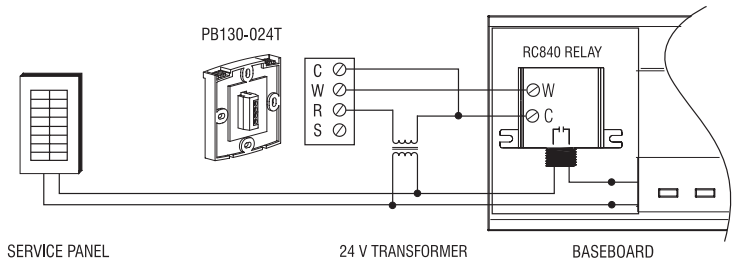
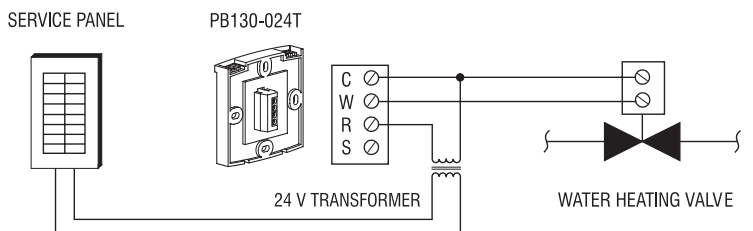


Figure 3: Single unit, relay inside baseboard



NOTE: The RC840T relay with built-in 24 V transformer is also available.

Figure 4: Connection to a water heating valve



## Technical Specifications

Maximum load: 0.5 A / 24 VAC

Operating temperature: 32°F to 122°F (0°C to 50°C)

Storage: -4°F to 122°F (-20°C to 50°C)

Size (H • W • D): 2.94 x 2.94 x 0.53 in. (74.6 x 74.6 x 13.3 mm)

Wire gauge: 14 to 22 AWG

If you have any questions concerning the PB130-024T low voltage power base, call our technical support team at:



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For more information on our products, visit us at:

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### AUBE TECHNOLOGIES INC. TWO (2) YEAR LIMITED WARRANTY

This product is guaranteed against workmanship defects for a two-year period following the initial date of purchase. During this period, AUBE Technologies Inc. will repair or replace, at our option and without charge, any defective product which has been used under normal conditions.

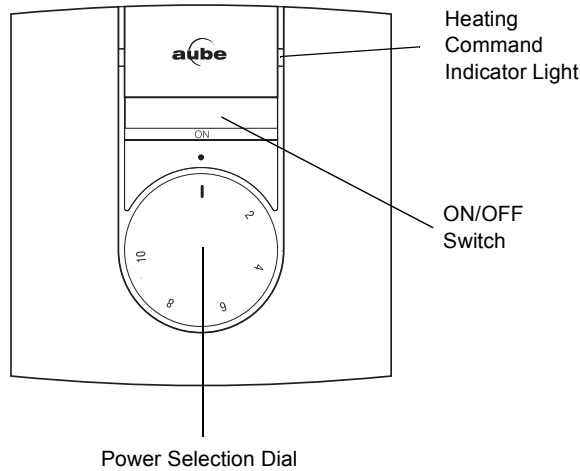
The warranty does not cover delivery costs and does not apply to products poorly installed or randomly damaged following installation. This warranty cancels and replaces any other manufacturer's express or implied warranty as well as any other company commitment.

AUBE Technologies Inc. cannot be held liable for related or random damages following the installation of this product. The defective product as well as the purchase invoice must be returned to the place of purchase or mailed, prepaid and insured, to the following address.



# Regulator TH131-R

## User Guide Control Module



### Introduction

Thank you for choosing Aube's TH131-R regulator.

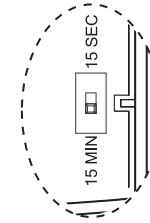
The TH131-R is specially designed to control an electric floor heating installation, a baseboard or a convector.

The TH131-R regulator operates like a dimmer switch to allow you to easily adjust the amount of power sent to your heating system.

This control module can be used with a line voltage power base (230 V European models) or a low voltage power base (24 V) combined with an electromechanical or triac relay.

### 1 Configure the Switch

Located in the lower-right corner of the control module, this switch is used to select the heating cycle based on the power base.



▶ **230 V LINE VOLTAGE BASE**  
**ALWAYS 15 minutes**

▶ **24 V LOW VOLTAGE BASE**

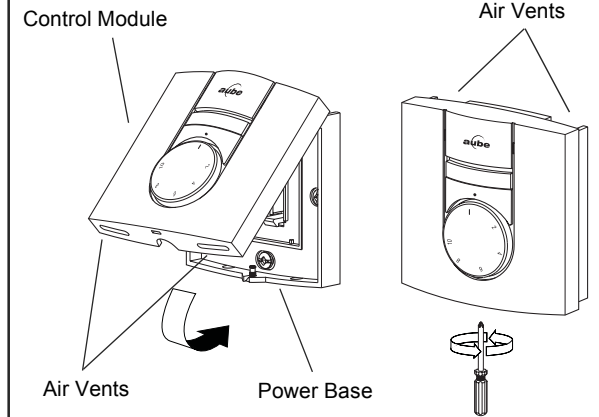
- **15 MIN**  
Use with a triac or electromechanical relay. Recommended for mechanical actuated system (water heating using a solenoid valve, etc.) or a fan-forced heater.
- **15 SEC**  
Use only for installations with SSR TRIAC relay. Recommended for electric heating (baseboards, convectors, etc.).

#### ON/OFF Switch

The TH131-R is equipped with an ON/OFF switch making it possible to turn off the regulator when its use is not required (e.g. summer).

### 2 Install the Control Module

Align the bracket tabs on the control module with the holes located on the power base and secure using the screw.



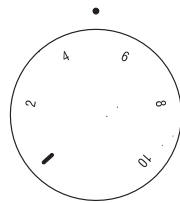
**NOTE:** Keep the regulator's air vents clean and free from obstructions.

**NOTE:** The screw cannot be removed completely.

### 3 Operation

The TH131-R regulator operates on perpetual 15-minute or 15-second heating cycles.

For example (15-minute cycles), if the dial is set halfway, the system will heat for 50% of the cycle; it will be ON for 7.5 minutes and OFF for 7.5 minutes.



Below is a detailed table of the cycle duration based on the dial's position:

Position and equivalent %	1 0%	2 20%	4 40%	6 60%	8 80%	10 100%
ON	0 min	3 min	6 min	9 min	12 min	15 min
OFF	15 min	12 min	9 min	6 min	3 min	0 min

**NOTE:** Depending on the power base used, the heating cycles can be 15 seconds or 15 minutes.

### Technical Specifications

**Model:** TH131-R

**Setting Range:** from 0 to 100%

**Storage:** -4°F to 120°F (-20°C to 50°C)

**Heating cycles:** 15-minute or 15-second

**Size (H/W/D):** 3,1 x 3,1 x 0,64 in. (78,9 x 78,9 x 16,3 mm)

#### Available Relays

Electric Heating Solid State Relay:

**RT850** this model handles 100 to 347 V.

**RT850T** this model has a built-in 24 V transformer and is available in 240, 277 and 347 V.

Electric Heating Electromechanical Relays:

**RC840** this model handles 120 to 347 V.

**RC840T** this model has a built-in 24 V transformer and is available in 240, 277 and 347 V.

### Warranty

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The warranty does not cover delivery costs and does not apply to products poorly installed or randomly damaged following installation.

This warranty cancels and replaces any other manufacturer's express or implied warranty as well as any other company commitment. AUBE Technologies Inc. cannot be held liable for related or random damages following the installation of this product.

The defective product as well as the purchase invoice must be returned to the place of purchase or mailed, pre-paid and insured, to the nearest address.

### Service

If you have any questions concerning the TH131-R regulator, call our technical support team at:



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